

USE OF VOLUNTEERS IN TUBERCULIN TESTING PROGRAM

Eunice L. Vandervoort, B.S., R.N.

THE USE of volunteers in a 1961 tuberculin skin testing survey of all school children in Santa Fe City and County brought into focus some new ideas on volunteer service. Santa Fe, N. Mex., is a small urban community of about 35,000 people, with a population of 10,000 in the surrounding county. In 1961 the city and county maintained a staff of five public health nurses, two clinic nurses, two clerks, one X-ray technician, and two sanitarians. In addition, the district health nursing supervisor, the district health officer, and the district supervising sanitarian maintained their headquarters at the health center. Final plans for the mass tuberculin testing survey were developed by this professional group. The program required little additional time from the health department staff, but it did require volunteer service from the entire community.

The rate of positive reactors in the school-age population was to be determined, to provide a baseline from which future incidence of tuberculosis could be interpreted. The county essentially consists of families with a high percentage of children, and an index of tuberculosis developed in the school-age group was considered to be a good index of tuberculosis in the community as a whole.

Since the program would provide the status of the entire school population, skin testing of the incoming classes would keep the knowledge of reactors current, provided children who were

known contacts or who had any medical indications for skin testing were treated as needed. A double check would be provided if graduating classes were also skin tested.

Some leads to additional active cases of tuberculosis were expected, even though the tuberculosis register had been kept up to date and all known contacts investigated.

We also wanted to determine the actual need of a professional staff for the skin testing program and the value and use of volunteers, and we needed to devise a plan of operation for a skin testing survey which would be efficient in time and cost, as well as to obtain accurate statistical data for future program planning.

Plan of Operation

Three separate and distinct programs were planned.

Public relations. A letter explaining the program and asking for suggestions was mailed to each local physician. Physicians with private X-ray facilities and laboratories were interviewed by the public health nursing supervisor, who explained the program and asked for suggestions for streamlining activities and, possibly, costs. The physicians agreed on a reduced fee for chest X-rays for private patients and a referral form for films taken outside of the health department, which would provide the department with a carbon copy of all X-ray readings.

The program plans were presented to the district nurses association, the licensed practical nurses organization, and the school for licensed practical nurses at St. Vincent Hospital. Each group was given detailed instructions on what volunteers from their organizations could do in the program. As a result of the appeal, 18 professional nurses, 2

Mrs. Vandervoort is public health nursing supervisor, Santa Fe County Health Center, Santa Fe, N. Mex. This article is based on the paper she presented at the nurse's section of the United States-Mexico Border Public Health Association meeting, Nogales, Ariz., April 29-May 2, 1963. The full text will appear in Spanish in the Boletín de la Oficina Sanitaria Panamericana.

licensed practical nurses, and 20 student nurses volunteered their services.

The school nurses presented the program plans to the parent-teachers associations and religious groups in the community. Parent volunteers were not counted, but they prepared, distributed, and collected 40,000 letters of explanation, request slips, and record cards for each child.

The editor of the local newspaper and representatives from the local radio stations were invited to attend staff meetings, which gave them an opportunity to become familiar with the philosophy and purpose of the program. They volunteered to prepare the publicity and to gear it to the activities for the entire program. The publicity was excellent, as the reporters were interested participants in committee meetings and inservice education classes.

The director of health education and his staff in the New Mexico State Health Department helped prepare all factual material on tuberculosis and local statistics for use by the press, radio, nurses, and teachers.

The director of the division of preventive medicine, a physician, assisted with staff inservice education and offered his office staff to help with the tabulation of statistics.

The State tuberculosis association volunteered to print all letters and educational material for the program and to pay 1 month's salary for a graduate nurse, who would be in charge of all volunteer nurses and the actual skin testing procedure.

The clerks in the health department mimeographed schedules and temporary record forms as needed.

The teachers volunteered to use the tuberculosis fact sheets prepared by the health education division as a basis for explaining tuberculosis to the students in the classroom and to stress the fact that "having a skin test for tuberculosis was an important part of a physical examination in our modern pattern of living." Fear of tuberculosis was minimized, and successful treatment was emphasized.

Student leaders in the high schools supported the program and encouraged participation by all students. This background support proved to be one of the most successful of all volunteer activities, because having a tuberculin test be-

came a "must fad" and changed the old rate of participation from 15 to 98 percent in the teenage group.

Inservice training and education. A workshop for volunteer nurses, public health nurses, and school nurses was conducted by the physician director of the division of preventive medicine. The scope of the workshop included explanation of the tuberculin test, demonstration of the Heaf gun or the sterneedle method, and a demonstration of how to read reactions and the meaning of these reactions. The sterneedle gun is a multiple puncture apparatus for rapid intradermal tuberculin testing. The workshop gave the nurses a feeling of security and provided the volunteer inactive nurse an opportunity to "brush up" on new facts in tuberculosis nursing.

The district nursing supervisor and the graduate nurse employed by the tuberculosis association developed detailed plans for team operation in giving the tests in the schools. These plans were reviewed and demonstrated to the nurses and volunteers for each team. Each volunteer nurse was given ample opportunity to practice giving the test and to work with her team.

The school nurses offered to teach the parent volunteers and to work with the teachers in getting all of the records completed for the program.

The public health nurses in the health department were assigned the responsibility of the followup program for all positive reactors. A workshop was arranged on the techniques of interviewing, and the nurses were taught how to explain tuberculosis and the meaning of a positive skin test to the parents and the child. The nurses were aware of followup failures in other mass survey programs. As a result, they volunteered to work evenings at the health center if the health department would send out letters of invitation to the parents of positive reactors to come to the health center for an interview, further skin tests of contacts, and assistance in planning for medical care.

Actual operation. Six testing teams were organized. Each team consisted of a graduate nurse who gave the test, a practical nurse who assisted her, and three parent volunteers who cleaned arms, sterilized loops, and kept supplies

available. The school nurses and teachers supervised the record work and kept the flow of students constant. One volunteer nurse kept all testing teams supplied with PPD. Each team had complete supplies for one table setup in a carrying case and materials available for an hour's operation.

The teams completed all skin testing programs in each school well within their allotted time. In the senior high school, 1,500 students were tested in 1 hour.

Results

From an enrollment of 13,222, there were 11,589 students tested. Of the group, 431 children (4 percent) had a positive reaction. Letters were mailed to the families of these children, stating the results of the test and giving them the choice of a day or night appointment for an interview with the public health nurse. There were 362 children and their families in this group who came to the health center for interviews and followup care. The 69 positive reactors who were not X-rayed were children who were being followed on Indian reservations by the Division of Indian Health of the Public Health Service, former reactors who were already under chest clinic supervision, children who had been under a private physician's care, and children from out of State, at local boarding homes, and a few who had moved, address unknown.

Skin tests given to 1,538 associates or family members of the school children at the health department showed that 218 had positive reactions. Of the group, 217 had chest X-rays, either at the health center or at private clinic facilities, which they were urged to attend if they could possibly afford to do so. One new case was diagnosed from the X-rays, and, pending diagnosis, 25 new cases were suspected.

Seven other conditions also were found.

Sixty-five former positive reactors, who were under medical supervision, took the skin test again. (This shows the popularity of the skin test, as these people had slipped through other checkpoints.)

From the survey, it was determined that:

1. The positive reactor rate in the school age population of Santa Fe City and County was 4 percent.

2. The professional nursing staff of a health department is needed only in the areas of health education, inservice training, planning, and followup.

3. A skin testing program can be successful when volunteers are used for (a) interpreting the program to the public, (b) record work, and (c) actual skin testing procedures (nurse volunteers only).

4. It is possible to organize a communitywide tuberculin skin testing program that is efficient in service, time, and cost.

Little misuse of the free X-ray facilities was found. Families who indicated that they could afford private care were referred to the physician and X-ray facility of their choice and given the proper referral forms. Several families agreed to go to a private physician when they could not afford it.

The volunteers in this tuberculin skin testing program were the key to the success of the venture. All the volunteers felt wanted and needed. They had clear and definite assignments, which included specific time requirements and an advance schedule. The volunteers' time was used to the fullest extent, because the work was planned in detail. The volunteers had excellent staff supervision in the training program and on the job, and there was a feeling of close relationship and mutual understanding between the professional staff and the volunteers.